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ESTIMATING JOBS IN THE AUSTRALIAN LABOUR MARKET

INTRODUCTION

This article presents estimates of the number of jobs over time in the Australian labour market. These estimates complement other important indicators of the state of the labour market and the economy provided regularly by the ABS, for example, estimates of employment and job vacancies. Increases or decreases in the number of jobs is generally seen as a guide to the performance and capacity of the labour market.

A supply side analysis of filled jobs is provided, facilitating comparison with employment estimates. The number of filled jobs is an estimate of jobs held by employed people from the ABS monthly Labour Force Survey (LFS).

The number of filled jobs is supplemented with unfilled jobs data from the quarterly Job Vacancies Survey (JVS) to form a measure of total jobs (filled and unfilled). LFS data up to February 2013, and the latest available JVS data (November 2012) are presented. Information regarding the methodology used to derive these estimates is available in the Appendix.

OVERVIEW

The LFS provides regular estimates of the number of employed people at a point in time. However, these estimates are often misrepresented as the number of jobs. The LFS estimates do not provide a measure of the number of jobs, they provide a measure of the number of people who are employed (the number of people who have a job). Similarly, the LFS measures the net increase or decrease in the number of people who have a job (not the number of jobs 'created' or 'lost').

A person holding multiple jobs with different employers is counted in the LFS as one person employed, even though they have more than one job. This has been previously discussed in the article *Employment or Jobs - What does the Labour Force Survey measure* (published in the October 2011 issue of *Australian Labour Market Statistics* (cat. no. 6105.0)).

The distinction between jobs and employment is also important when considering full-time/part-time status. As full-time/part-time status relates to a person's employment (based on the total hours they work in all of their jobs), the number of full-time employed people (and changes in that number) does not equate to the number of full-time jobs in the labour market.

ABS household surveys provide labour supply estimates (for example, employment in the LFS) whereas business surveys are better suited to providing estimates on labour demand. Therefore filled jobs estimates would be better suited to business surveys, because they would be based on the number of jobs involving paid employment. However, there is no frequent (sub-annual) ABS economy-wide survey which collects jobs data from businesses. Nonetheless it is possible to use

existing data from the LFS to derive estimates of the number of jobs held by employed people. This was foreshadowed in Information paper: Outcomes of the Labour Household Surveys Content Review (cat. no. 6107.0).

TRENDS IN THE NUMBER OF JOBS

In February 2013, there were 11,628,300 employed people in Australia (seasonally adjusted). Of these, 610,500 were multiple job holders, resulting in an estimated 12,287,200 (filled) jobs (refer to Appendix for details). This highlights that in February 2013, there were 658,900 more filled jobs than there were employed people.

In November 2012, the estimated number of total (filled and unfilled) jobs in the labour market was 12,371,200, or 826,500 more than the number of employed people.

The number of filled and total jobs follows a similar long term trend to that of the number of employed people, but at a higher level because of multiple job holding (Figure 1). However, the difference has increased over recent years; in February 2002, the difference between filled jobs and employment was 553,100, while in February 2013 this difference was 659,700.

Figure 1: Employment and jobs (seasonally adjusted, quarterly)

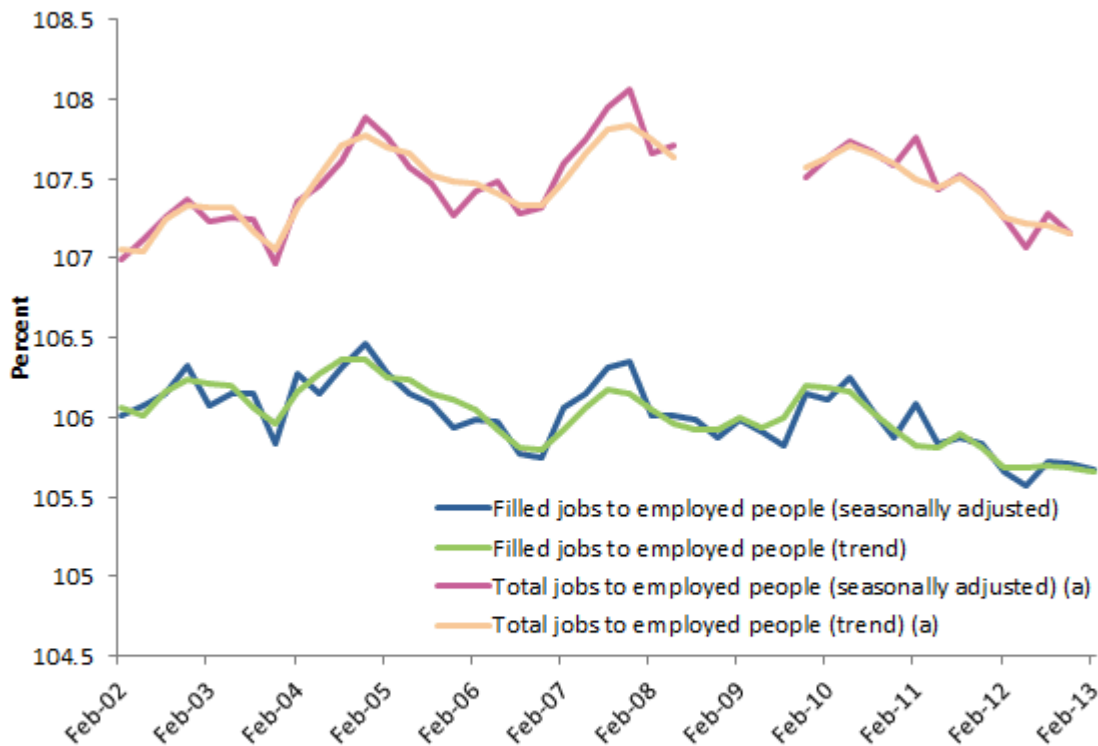


(a) JVS was suspended between August 2008 and August 2009, therefore no total jobs data are available for this period.

Source: Labour Force Survey, Job Vacancies Survey and Survey of Employment Arrangements, Retirement and Superannuation (see appendix for details of the methodology)

Presenting a 'jobs to employment' ratio is a more illustrative way of examining the relationship between jobs and employment, as it removes the underlying impact of employment growth. Figure 2 shows the proportion of jobs relative to employment. For example, a ratio of 107 percent indicates that there are 107 jobs for every 100 employed people.

Figure 2: Proportion of jobs to employment (quarterly)



(a) JVS was suspended between August 2008 and August 2009, therefore no total jobs data are available for this period.

Source: Labour Force Survey, Job Vacancies Survey and Survey of Employment Arrangements, Retirement and Superannuation (see appendix for details of the methodology)

These ratios show an increase in total jobs around 2004, relating to both job vacancies as well as filled jobs. The number of filled jobs per employee has followed a long-term cycle, but has trended downward slightly, and has recently fallen to its lowest point in a decade. The ratios of both filled and total jobs to employment have been trending down since early 2010.

FULL-TIME AND PART-TIME JOBS

Full-time/part-time status relates to a person's employment (based on the total hours they work in all of their jobs). Therefore it is possible for a worker to be categorised as employed full-time, but hold multiple part-time jobs. In analysing full-time/part-time status, the number of people employed full-time and part-time are often misrepresented as the number of full-time and part-time jobs, which is not the case.

The JVS does not identify specific characteristics of each vacant job; therefore vacancies are not identified by whether they are for full-time or part-time positions. As a result, separate measures of total full-time jobs and total part-time jobs cannot be obtained.

The number of people employed full-time exceeds the number of full-time filled jobs because many people who have multiple part-time jobs work a total of more than 35 hours per week, and are therefore classified as employed full-time in the LFS. Conversely the number of part-time filled jobs exceeds the number of people employed part-time. More information is available in the Appendix.

In February 2013, there were 8,117,400 full-time employed people (seasonally adjusted), compared with 7,943,100 full-time filled jobs; that is 174,400 fewer full-time jobs. There were 3,510,800 people employed part-time, and 4,261,300 part-time jobs; that is 750,500 more part-

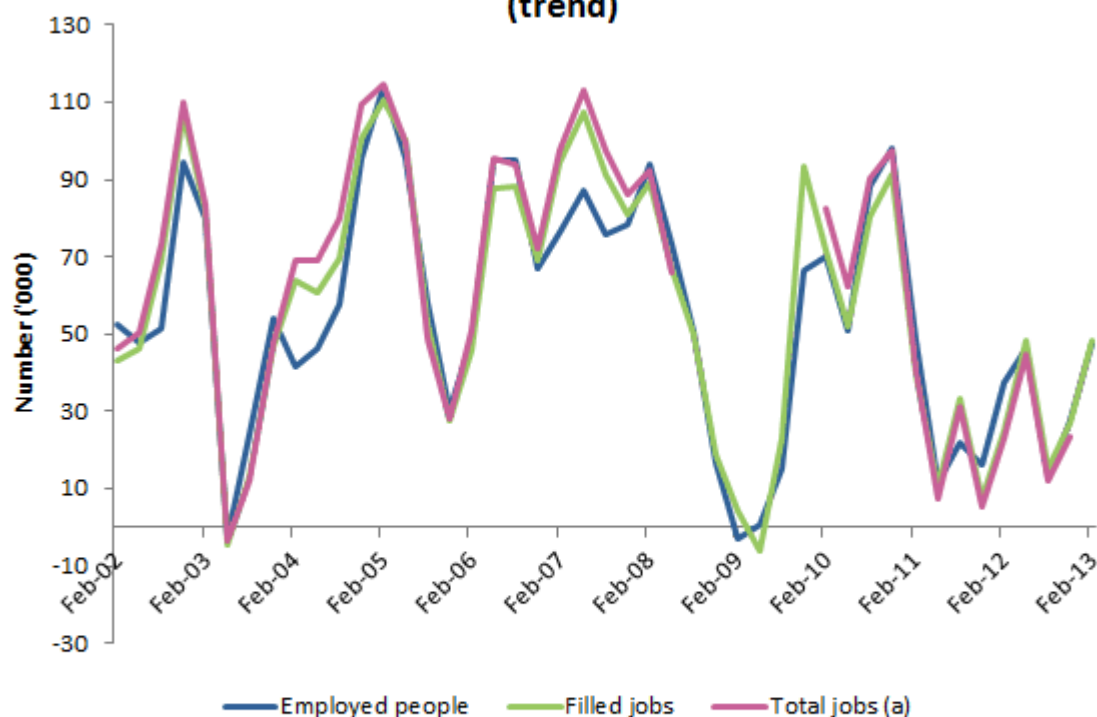
time jobs. The ratio of part-time filled jobs to all filled jobs is consistently higher than the ratio of people employed part-time to all people employed. In February 2013, 35% of filled jobs were part-time compared to the 30% of people who were employed part-time. This provides an alternative perspective on the prevalence of part-time work.

CHANGE IN NUMBER OF JOBS

When looking at changes in the number of jobs over time, it is important to recognise that a net increase in the number of jobs does not equate to the number of jobs 'created', and a net decrease in the number of jobs does not equate to the number of jobs 'lost'. For example, if a business closes down and twenty people lose their job while a new business starts and hires thirty people, then there is a net increase of ten jobs. While the net figure is important it is also important to recognise the underlying flow of jobs, i.e. to understand that 'twenty jobs were lost' and 'thirty jobs were created'.

As shown in Figure 1, the number of jobs follows a similar long term trend to employment levels. Over time, there is volatility in the change of both employment and jobs, even when looking at seasonally adjusted data. Using trend data, long-term cycles are more clearly identifiable, with strong increases in both employment and jobs from 2004 to 2007 evident (Figure 3). The quarterly increases in employment in both 2004 and 2007 were lower than the increases for both filled and total jobs. This indicates stronger growth in multiple job holding and job vacancies during these periods relative to employment.

**Figure 3: Quarterly change in employment and jobs
(trend)**



(a) JVS was suspended between August 2008 and August 2009, therefore no total jobs data are available for this period.

Source: Labour Force Survey, Job Vacancies Survey and Survey of Employment Arrangements, Retirement and Superannuation (see appendix for details of the methodology)

Over shorter periods, seasonally adjusted data facilitates the interpretation of period-to-period movements. With seasonally adjusted data, there are noteworthy deviations in the month-to-month net changes between employment and filled jobs, as seen in Figure 4.

**Figure 4: Monthly change in employment and filled jobs
(seasonally adjusted)**



Source: Labour Force Survey and Survey of Employment Arrangements, Retirement and Superannuation (see appendix for details of the methodology)

Generally, the monthly changes in employment and filled jobs are similar. However, there are some periods where employment and filled jobs have quite different movements. Examples of this divergence include:

- November 2011, where employment rose by 5,100, but filled jobs fell by 5,200 from the previous month;
- February 2011, where employment fell by 8,400, but filled jobs rose by 27,000 from the previous month;
- the two month period to October 2009, where filled jobs rose by 75,900 more than the rise in employment; and
- December 2007, where employment rose by 22,900, but the number of filled jobs fell by 10,600.

CONCLUSION

Measures of jobs provide an alternative way of examining the labour market. This article explained the difference between the concepts of employment and jobs. In addition, the article demonstrated that while filled jobs and total jobs follow a similar long-term trend to employment, the levels are not the same, and they do not necessarily move in the same way from period to period. This distinction between employment and jobs is particularly important when analysing full-time or part-time status, since full-time and part-time employment relate to the number of hours worked over all jobs held, rather than the number of full-time or part-time jobs.

The ABS welcomes comments on the usefulness of the analysis in this article, and on the methodology used to derive the estimates. For further information on this article, or to provide feedback, please contact Pourus Bharucha on (02) 6252 6218 or email

<pourus.bharucha@abs.gov.au>.

Subject to any feedback received, the ABS is considering producing these estimates annually.

APPENDIX: METHODOLOGY

The jobs estimates provided in this article are compiled using data from the monthly LFS, the quarterly JVS and the 2007 Survey of Employment Arrangements, Retirement and Superannuation (SEARS). While estimates of filled jobs would ideally be sourced from a survey of businesses (with access to payroll information) rather than a survey of households, there is no frequent (sub-annual) ABS economy-wide survey which captures jobs data from businesses.

Estimates of the number of filled jobs were produced using data collected in the LFS. The LFS identifies whether an employed person has more than one job, but not the number of jobs they hold. The 2007 SEARS provides estimates of the proportion of multiple job holders with two, three or four jobs, and these proportions were applied to the LFS estimate of the number of multiple job holders. In addition, by using LFS estimates of the hours actually worked in a multiple job holder's main job in the reference week, the number of full-time and part-time employed were converted into the number of full-time and part-time jobs held. Since usual hours for a multiple job holder's main job are not collected, the full-time/part-time status of a multiple job holder's main job is estimated based on actual hours only. A negligible number of employed people have multiple full-time jobs.

The time series for multiple job holders who are full-time or part-time in their main job, or who are full-time or part-time employed, have different seasonal patterns, and are therefore independently seasonally adjusted. This means that the components will not necessarily add to the number of multiple job holders. However this does not affect the analysis.

The 2007 SEARS showed that of all multiple job holders, 93% had two jobs, 7% had three jobs, and less than 1% had 4 or more jobs. These proportions were applied to data on the number of multiple job holders from the LFS to generate the total number of filled jobs in the labour market back to mid 2001, as multiple job holder data are available on a consistent basis back to this point in time. Multiple job holding data are also available from the 2000 Survey of Employment Arrangements and Superannuation (SEAS). The results of the 2000 and 2007 surveys indicate that the extent of multiple job holding (the proportions of multiple job holders with two, three or four jobs) was not substantially different between these periods.

From mid 2014, the ABS plans to expand the data collected on multiple job holders in the LFS to include the number of jobs held by employed people. See Information paper: Outcomes of the Labour Household Surveys Content Review (cat. no. 6107.0) for more information.

The total number of jobs equals these LFS filled jobs estimates (as described above) plus the number of unfilled jobs estimated from the quarterly JVS. Job vacancies estimates from the JVS relate to vacant jobs for which recruitment action has been taken and which are available for immediate filling on the reference date (not merely jobs which could be considered 'unoccupied'). More information is available under the Explanatory Notes - Glossary section of Job Vacancies, Australia (cat. no. 6354.0).

The scope of these jobs estimates is based on the scope of the surveys they are generated from. For example, filled jobs, sourced primarily from the LFS, excludes jobs occupied by people aged under 15 years, as well as jobs occupied by military personnel or non-residents of Australia. The JVS excludes those businesses primarily engaged in agriculture, forestry and fishing; private households employing staff; and foreign embassies, consulates, etc.

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